EESTI STANDARD EVS-EN 13541:2001

Glass in building - Security glazing - Testing and classification of resistance against explosion pressure

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13541:2001 sisaldab Euroopa standardi EN 13541:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 04.04.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13541:2001 consists of the English text of the European standard EN 13541:2000. This document is endorsed on 04.04.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard specifies classification of and performance requirements and test method for explosion pressure resistant glazing for use in buildings. The explosion pressure resistant glazing is intended to offer resistance against explosive with respect to human safety. This standard concerns a metod of test against blast waves generated using a shock tube or similar facility to simulate a high explosive detonation. The classification is only valid for the tested glass sizes of about 1 m2². Based on theoretical considerations and/or experimental work, the results can be used for estimating the explosions-pressure-resistance of other glass sizes.	**Scope:** This standard specifies classification of and performance requirements and test method for explosion pressure resistant glazing for use in buildings. The explosion pressure resistant glazing is intended to offer resistance against explosive with respect to human safety. This standard concerns a metod of test against blast waves generated using a shock tube or similar facility to simulate a high explosive detonation. The classification is only valid for the tested glass sizes of about 1 m2². Based on theoretical considerations and/or experimental work, the results can be used for estimating the explosions-pressure-resistance of other glass sizes.

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Võtmesõnad: buildings, classification, glazing, performance tests, safety measures, security glazing, tests

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English version

Glass in building

Security glazing

Testing and classification of resistance against explosion pressure

Verre dans la construction – Vitrage de sécurité – Mise à essai et classification de la résistance à la pression d'explosion

Glas im Bauwesen – Sicherheitssonderverglasung – Prüfverfahren und Klasseneinteilung des Widerstandes gegen Sprengwirkung

This European Standard was approved by CEN on 1999-08-16.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 129 "Glass in building", the secretariat of which is held by IBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2001, and conflicting national standards shall be withdrawn at the latest by May 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

The choice of an explosion pressure resistant glazing material (e.g. security glazing product) in an individual case should be established by the user. Experts in the field of explosions are able to determine in most situations the expected level and duration of the shock wave, based on the type of explosion and the distance from the heart of the explosion.

The classification of explosion pressure resistance is based on the maximum positive pressure of the reflected shock wave and the duration of the positive pressure phase.

1 Scope

This standard specifies a test method, performance requirements and classification for explosion pressure resistant glazing for use in buildings .

The explosion pressure resistant glazing is intended to offer resistance against explosive with respect to human safety.

This standard concerns a method of test against blast waves generated using a shock tube or similar facility to simulate a high explosive detonation.

The classification is only valid for the tested glass sizes of about 1 m^2. Based on theoretical considerations and/or experimental work, the results can be used for estimating the explosion-pressure-resistance of other glass sizes.

NOTE 1 In order to also ensure a certain resistance against flying fragments, reference can be made to EN 356.

NOTE 2 The resistance classes are not assigned to specific situations. For each individual case the specifier, if necessary with the help of experts in the field of explosion, should be consulted.

NOTE 3 The protection provided by explosion-resistant-glazing not only depends on the product itself, but also on the design and fixing of the glass.
In prEN 12488, prEN 13123-1, prEN 13124-1, WI 00033086, WI 00033087, respectively, recommendations are given for proper installation of security glazing*).

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

ISO 48 Rubber, vulcanised or thermoplastic - Determination of hardness (hardness between 10 IRHD and 100 IRHD)

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply.

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*) See bibliography.